

REMARKS

Claims 1-11 and 24-27, as amended, appear in this application for the Examiner's review and consideration. Of these, claims 6, 11, and 24 are currently amended, and claims 12-23 are withdrawn due to a restriction requirement. Claims 6 and 11 are amended for definiteness and claim 24 is amended for clarity. Claims 12-23 are cancelled in view of the restriction requirement. As no new matter is introduced by these amendments, Applicant respectfully request the entry of the amendments at this time.

Applicant acknowledges with appreciation the allowance of claim 1-5 and 26-27, and the indication that claim 6-11 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112. In view of the following comments, it is believed that all current claims are now in condition for allowance.

In the Office Action, the Examiner maintained the restriction requirement regarding claims 12-23. Applicant respectfully traverses. Claims 12-23 are directed to a nonwoven fabric in the form of a three-layered hydro-entangled sandwich fibre web comprising top, bottom, and middle layers at least having synthetic fibres in the bottom and top layers and cellulose fibres in the middle layer. Thus, these claims are related to claims 6-11 in that all of these claims are directed to a nonwoven fabric in the form of a three-layered hydro-entangled sandwich fibre web. As such, a prior art search for claims 12-23 would necessarily be coextensive with that for claims 6-11, and there would be no additional burden on the Examiner to examine all of the claims together. Although Applicant submits that all of the claims should be examined together, non-elected claims 12-23 are herein cancelled to expedite the prosecution of this application.

Turning now to the rejections, claims 6 and 11 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In response, claim 6 is amended to clarify how the structure of the apparatus is related to the process steps. Claim 11 is amended to clarify that the nonwoven fabric has three layers comprising top and bottom layers of nonwoven fabric and a middle layer of cellulose fibres. Accordingly, the rejection under 35 U.S.C. § 112 is overcome, and claims 6-11 are believed to be allowable.

Claims 24 and 25 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,500,281 to Srinivasan et al., and under 35 U.S.C. § 102(e) as being anticipated

by U.S. Patent No. 6,550,115 to Skoog et al, for the reasons stated on pages 5-7 of the Office Action. Applicant respectfully traverses.

Srinivasan discloses a nonwoven fabric comprising polyvinyl alcohol (PVA) fibers that are heat-bonded to a matrix of absorbent fibers. The fabric is produced by blending PVA fibers with other absorbent fibers and then supplying the blended PVA fibers to conventional card units at a carding station (see col. 3, lines 23-28). The carded fibers are transported on a card conveyor, and a suitable amount of water is supplied to the web, and the wet web is passed through heating and drying stations (see col. 3, lines 28-43). Thus, the nonwoven fabric disclosed in Srinivasan is formed by carding, which is a mechanical drylaid process. Carding separates and aligns fibers and uses a series of rolls and drums (known as “cards”) with projecting teeth that lay the fibers largely in the same direction. Thus, in a carded web, the fibers are laid in the same direction and in parallel to one another. The drylaid carding process is used to convert the individual fibers into a uniform, fibrous web with sufficient cohesion to enable transport to the next processing stage.

Thus, the carding process used in Srinivasan is completely different from air-laying used in the process according to claim 24, in which short fibers are fed into an air stream and then to a moving belt or perforated drum, where they form a randomly oriented web. Furthermore, in contrast to a carded web, an air-laid web has a lower density and increased softness and does not include a laminar structure. Thus, an air-laid web offers greater versatility than a carded web with respect to fiber and fiber blend materials that can be used. To further emphasize such differences, claim 24 is amended to recite that the forming heads are air-laying forming heads. Claim 6 is similarly amended for consistency. Since Srinivasan does not disclose or suggest the use of air-laying forming heads to produce a three-layered sandwich fibre web or a nonwoven fabric comprising a three-layered sandwich fibre web produced by an air-laying process, Srinivasan does not anticipate, or render obvious, claims 24 and 25.

Similarly, Skoog does not disclose or suggest air-laying to produce a three-layered sandwich fibre web. Skoog discloses a fabric including first and second zones of synthetic fiber structure and a short fiber third zone. The first and second zones are nonwoven webs that are spunbonded or meltblown (see col. 4, lines 52-65; col. 5, lines 34-38). In spunbonding, fabrics are produced using filaments that have been extruded, drawn and then laid on a continuous belt, where the fibers are bonded. In meltblowing, fabrics are produced by

extruding molten polymers through a die and attenuating and breaking the resulting filaments with hot, high-velocity air or steam. The fibers are then collected on a moving screen where they bond by cooling. Thus, spunbonding and meltblowing processes are completely different from air-laying, such that Skoog does not anticipate or render obvious the use of air-laying forming heads as recited in claim 24 or a three-layered fibre web produced by such air-laying process as recited in claim 25.

Accordingly, the rejection of claims 24 and 25 under 35 U.S.C. § 102 over Srinivasan and Skoog should be withdrawn.

Therefore, it is believed that the entire application is now in condition for allowance, early notice of which would be appreciated. In the event that the Examiner does not agree that all claims are now allowable, a personal or telephonic interview is respectfully requested to discuss any remaining issues in an effort to expedite the eventual allowance of this application. Please contact the undersigned with any questions regarding this application.

Respectfully submitted,

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Date


Allan A. Fanucci (Reg. No. 30,256)

WINSTON & STRAWN LLP
Customer No. 28765
212-294-3311